# The virtually browseable collection

## connecting GIS to whole drawer imaging

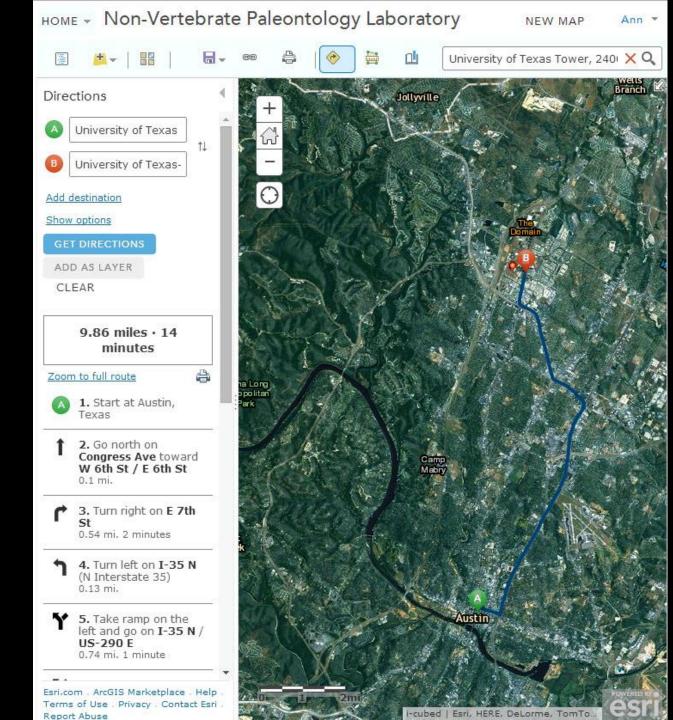
Ann Molineux, Robert W. Burroughs, & Faye Geigerman. Jackson School of Geosciences, The University of Texas at Austin

# The problem

- Pressure for premium space
- Resistance of researchers to separate from their collections
- Out of sight: Out of mind
- Lack of interest in or education about the value of research collections
- Shortage of support to hire staff to make large collections fully accessible in a traditional use model.

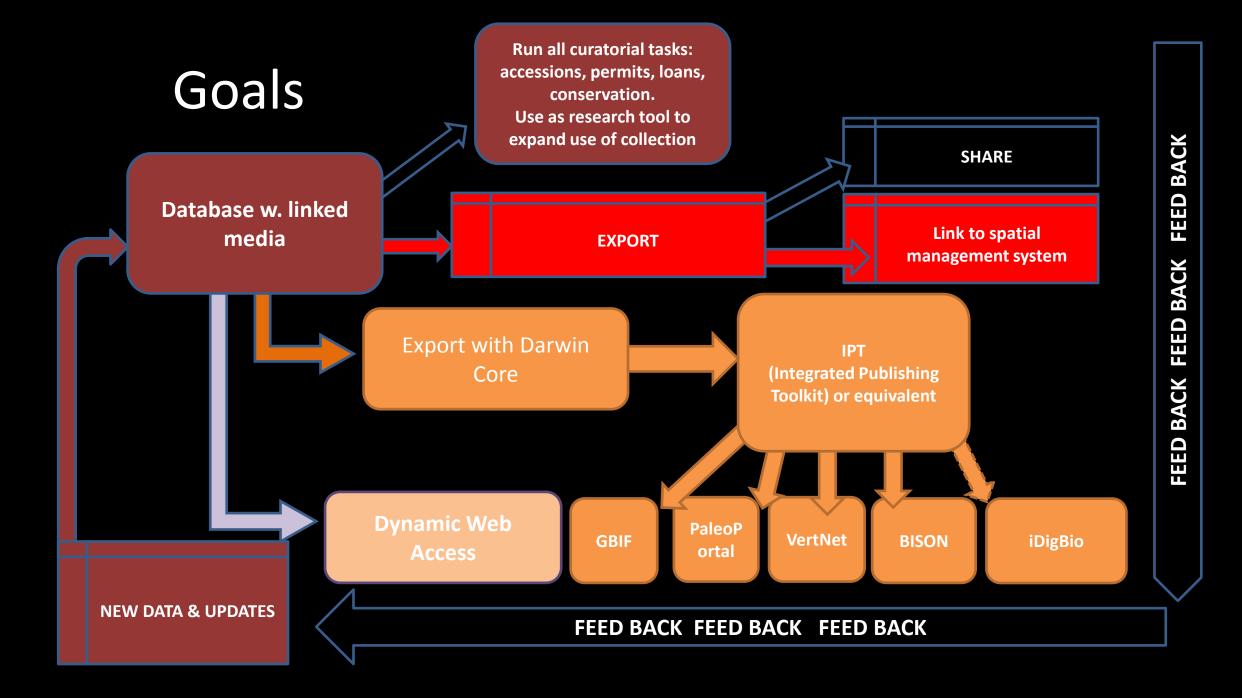
# Our scenario

- ONLY 10 miles to UT
- 14 minutes by car
- 35 minutes by bus
- Mental distance??



# Basics of our project

- Database with each specimen (Collection Object) tagged with full repository address
- Images of individual specimens attached to Collection object records
- Images of each drawer linked to drawer record
- GIS map of repository



## Portal access

addition	
Quadrula (189) 📤	World Overview of Lifemapper/GBIF Occu
Quadrula apiculata (3)	Wond Overview of ElfernappenGBIT Occu
Quadrula aurea (1)	
Quadrula cylindrica (2)	
Quadrula forsheyi (1)	
Quadrula heros (1)	
Quadrula houstonensis (2)	
Quadrula intermedia (1)	
Quadrula metanerva (1)	
Quadrula metanevra (2)	
Quadrula mortoni (4)	
Quadrula nodulata (3)	
Quadrula postulosa (1)	
Quadrula pustulosa (54)	and the second se
Quadrula pustulosa mortoni (1)	
Quadrula pustulosa pernodosa (6)	Interactive View of Results
Quadrula pustulosa pustulosa (28)	CONTRACT OF A DESCRIPTION OF A DESCRIPTI
Quadrula pyramidata (1)	
Quadrula quadrula (58)	United States
Quadrula refulgens (5)	
Quadrula rumphiana (2)	Oldahoma City
Quadrula stapes (5)	and the second sec
Quadrula tuberculata (1)	E ForOWbrith
Quadrula tuberculata tuberculata (1)	distirez · · · ·
	No. 20020
Search My Data	San Antonio
Quadrula	uahua orago or <u>2</u>
Show My Data	Altitud Lat 40Lon -9Elev

Species Name: Quadrula\*

Search

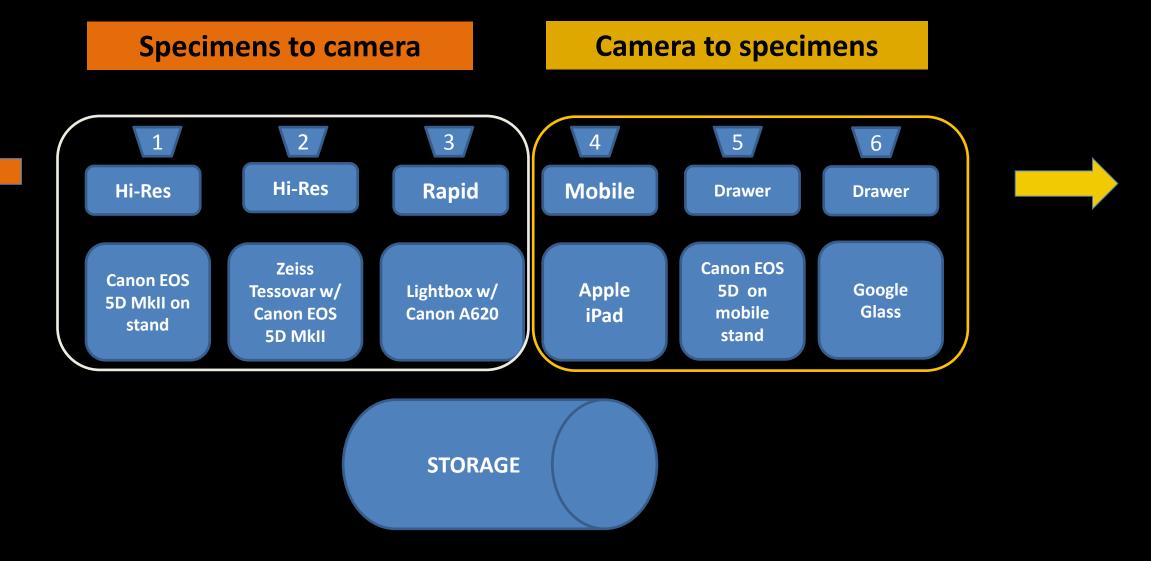
### iew of Lifemapper/GBIF Occurrence Results



, 200 Km

Ann Molineux, Robert W. Burroughs, & Faye Geigerman. Jackson School of Geosciences. The University of Texas at

## Image strategy



## Research quality imaging and data access

Eopinnacrinus pinnulatus Brower & Veinus n.gen., n

## PaleoCentral

MAP RECORDS REFERENCES TOOLS LOGIN HOME

### Types Collection

### Records » TX 1121.66

Scientific Name ② Eopinnacrinus pinnulatus Brower & Veinus n.gen., n

Common Name ② crinoid

Taxonomic Hierarchy 2 Phylum: Echinodermata Class: Crinoidea Order: Family:

Collector ② Collector: Graffham, A

Collection Date:

### Publication ②

Brower & Veinus, 1982. Sprinkle, J. T (Ed.), University of Kansas Paleontological contributions, Monograph 1, pl. 11 fig. 3, 7, fig. 42a, fig. 42b, p. 141.

#### Images



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the content is used. Questions and comments about this site can be sent to Ann Molineur

West Branch Sycamore Cre Geographic Locatio Johnston County, Oklahom Geologic Age ②

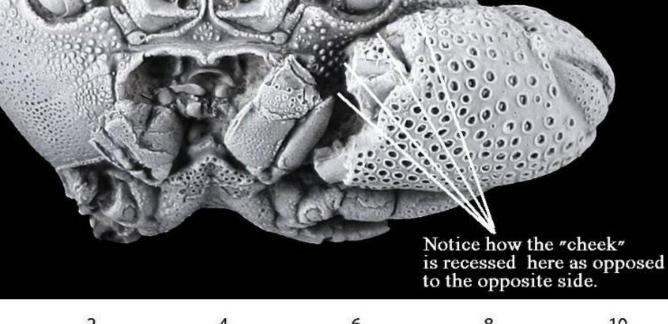
Locality Verbal 🕐

Era: Paleozoic Period: Ordovician Epoch: Late Age: Katian (Mohawkian)

Stratigraphic Positi Group: Simpson

Formation: Bromide Member: Mountain Lake

Storage Location @ PRC122, Types, 19, 50





### millimeters

4/9/2014

# Rapid imaging with inventory





Online browsing

AGE Cret. FORMATION LOCALITY 14 mi. north of Goodland, NPL 62041 Indian Territory LOC. NO. COL NO THE UNIVERSITY OF TEXAS BUREAU OF ECONOMIC GEOLOGY GEOL' GICAL SURVEY OF TEXAS (DUMBLE SURVEY) RED NO. ( . ) J.A. Taff- No. 1, NB. I, p. 4 April 9, 1892 Labeled: Pholadomya "Fredricksburg Div." Form 2.-1889. Tredere harherty No. / N B. P. P. 18 P. 18 Pholadomya Docality Mich. of Mich. 20

5 10 <sup>15</sup>

Examine for Freil. Div. Collector :

139

2 Sector

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4/9/2014

## New connections

ArcGIS FEATURES PLANS GALLERY MAP HELP

### **Travis County Fossil Collection**



Web Map by artemisharbert Last Modified: April 16, 2014 (0 ratings, 27 views) Sign in to rate this item. 🚹 Facebook 💟 Twitter

#### Description

Access and Use Constraints

#### Map Contents

Fossil with collection date:

https://services1.arcgis.com/7DRakJXKPEhwv0fM/arcgis/rest/services/year/FeatureServer/0 Fossil with approximated collection date:

https://services1.arcgis.com/7DRakJXKPEhwv0fM/arcgis/rest/services/approx/FeatureServer/0 City of Austin Major Arterials:

https://services1.arcgis.com/7DRakJXKPEhwv0fM/arcgis/rest/services/City\_of\_Austin\_Major\_Arterials/FeatureServer/0 Topographic:

https://services.arcgisonline.com/ArcGIS/rest/services/World\_Topo\_Map/MapServer

#### Properties

6/7/2014

Tags	Fossil Date	
Credits		
Size	8 KB	
Extent	Left: -98.62	Right: -96.84
	Top: 30.84	Bottom: 29.92

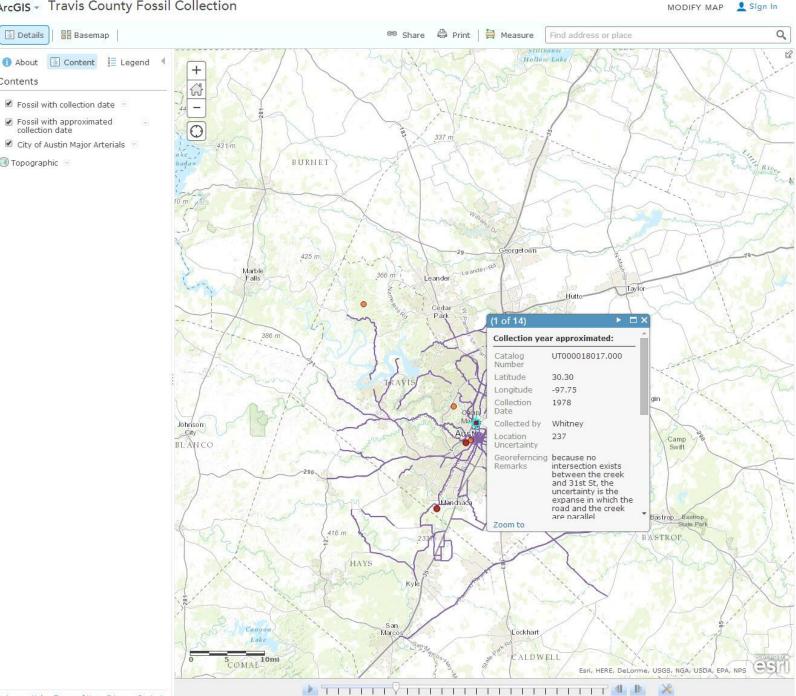
### ArcGIS - Travis County Fossil Collection

Details

Contents

collection date

Topographic E



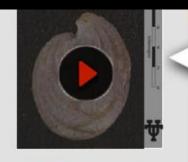
1879 to 1909

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## Future developments.....



## Connect with the 21<sup>st</sup> century









Ψ

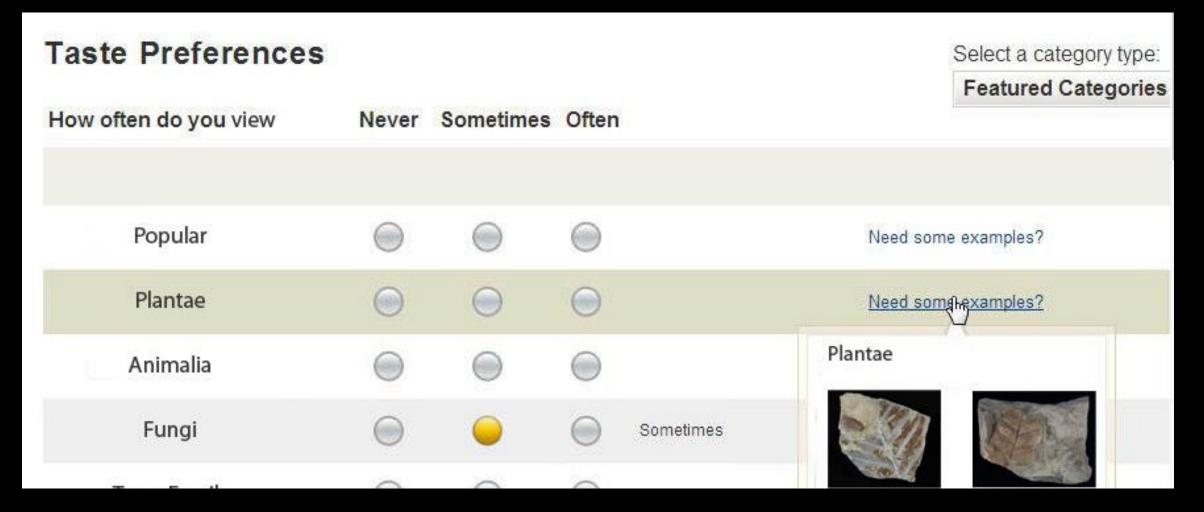
### Because you liked H. meekana



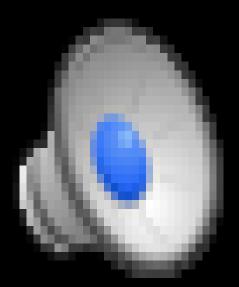
# Develop your preferences

Taste Preferences				Select a category type:	
				Featured Categories	
How often do you view	Never	Sometimes	Often		
Popular	$\bigcirc$	$\bigcirc$	$\odot$	Need some examples?	
Plantae		$\bigcirc$	$\bigcirc$	Need some examples?	
Animalia		$\bigcirc$	$\bigcirc$	Need some examples?	
Fungi	$\bigcirc$	0	Sometimes	Need some examples?	
	0	$\sim$	~		

# And into the future



## Increasing the basic drawer capture?



# Acknowledgements

- Volunteers and associates of NPL especially: Angella Thompson, Liath Appleton, Vernon Berger, Christopher Garvie, Ed Elliott, Jeff Genung
- Artemis Harbert, Information School, University of Texas at Austin
- Many of the protocols are based upon work supported by the National Science Foundation under grants:
  - DBI-1057396: Open Access: Conservation, Digitization and interoperability of the Historic Non-vertebrate Collections of the Texas Natural Science Center.
  - EF-1305070: Digitization PEN: Targeted digitization to expand and enhance the Paleoniches TCN.
  - Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.



